

REMARKS

In the Claims:

Indefiniteness Rejection

The Examiner rejected Claims 8-19 under 35 U.S.C. § 112, second paragraph as being indefinite because there is no antecedent basis for "cam chamber" in Claims 8 and 14. Applicants have amended Claims 8 and 14 to overcome this rejection by modifying the word chamber such that there is proper antecedent basis for the phrase.

35 U.S.C. § 103(a) Rejection

The Examiner further rejected Claims 8-19 under 35 U.S.C. § 103(a) as being unpatentable over Tuggle (U.S. Patent No. 4,286,675) or Kovacs (DE 3335962) in view of Takada et al (JP 61-39416). Applicants respectfully traverse this rejection of Claims 8-19.

As the Examiner recognized in the January 21, 2005 Office Action, Tuggle discloses only a two-cycle engine. The Examiner also explained that Takada et al is directed to a lubrication apparatus for a simple and compact structure. However, Takada et al does not disclose a four-cycle engine as required in Claims 8-19. Because neither Tuggle nor Takada et al discloses a four-stroke cycle engine for use on a hand-held, portable, power tool, the combination of these references does not disclose each of the limitations of Claims 8-19 such that one of ordinary skill in the art would combine the engine of Takada et al with the tool of Tuggle as the Examiner suggests. Furthermore, there is no teaching to combine the engine of Takada et al with the tool of Tuggle. For these reasons, Applicants respectfully request that the rejection of Claims 8-19 under 35 U.S.C. § 103(a) as being patentable over Tuggle in view of Takada be withdrawn.

The Examiner also rejected Claims 8-19 as being unpatentable over Kovacs in view of Takada et al, because the Examiner reasoned that one of ordinary skill in the art

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would combine the engine of Takada with the tool of Kovacs. While Kovacs states that the invention relates to a four-cycle engine suitable for use with a variety of tools, Kovacs provides no explanation on how the four-cycle engine to which the invention is directed provides a reduction in weight such that a four-cycle engine can be used with the tools listed, and in particular, a chain saw. Instead, Kovacs states that the “invention is based on the object of exhausting the combustion chamber to the greatest possible extent.” An efficient engine does not equate to a lighter engine such that the disclosure provides nothing more than speculation that a four-cycle engine can be used with a hand-held, portable power tool power tools. Applicants submit that there is no teaching in either Kovacs or Takada et al to combine the lubrication apparatus of Takada et al with the four-cycle engine of Kovacs. Such combination is made with the benefit of hindsight only, which is improper. Without further teaching than that provided in Kovacs and Takada et al, it would not be obvious to one skilled in the art to combine a lubrication apparatus with a fuel-efficient four-cylinder engine.

Furthermore, if a four-cycle engine were used as suggested by the Kovacs patent, the result would be a tool that is both incapable of being “hand-held” and also incapable of being “carried by an operator while in use” as required by the pending claims. In fact, use of a four-cycle engine would be completely inoperable. Significantly, before the present invention, there had never been a four-cycle engine that could be used on a hand-held power tool and be carried by an operator when in use. Thus, because Kovacs does not provide a description of an embodiment of a four-cycle engine used with a hand-held tool, the disclosure amounts to nothing more than speculation. The addition of Takada does not change that fact. Indeed, many publications support the proposition that no such four-cycle engine was available and that four-cycle engines were much too large to be used in the claimed invention.

For example, the 1993 Popular Science article titled *The Little Engine That Could* (attached hereto as Ex. A) states that conventional four-cycle engines “normally weigh 40 pounds,” that the parts and technology for the invention in the present application

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"didn't exist," and to characterize Ryobi's design as "just miniaturizing" is "an understatement of the cleverness of the Ryobi engine design." (Ex. A, p. 92).¹

The addition of the Takada et al patent to the Kovacs patent does not overcome the defect that four-cycle engines were simply too large and too heavy to be used with "hand-held" tools that were "carried by the operator" when in use. Indeed, there is nothing that shows that the four-cycle engine disclosed in Kovacs or Takada can be used in such an application as claimed. The same applies to the rejection based on Tuggle in view of Takada.

In view of the foregoing comments, Applicants respectfully submit that Claims 8-19 are patentable over Tuggle or Kovacs in view of Takada et al., and the claims are in a condition ready for allowance. In the event issues remain that the Examiner feels might be resolved by interview, he is respectfully requested to telephone applicant's attorney at (312) 321-4221.

Respectfully submitted,



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¹ This article refers to Ryobi because the parent application was originally assigned to Ryobi. Ryobi has since transferred all of its rights to MTD.